

AMENDMENTS TO THE CLAIMS

1. (Currently amended) Transport device for sterile fluids to transport a sterile fluid from a source to a consumer, comprising

a pump that transports volumetrically, with a suction cycle for drawing in said fluid and an output cycle for ejecting said fluid;

conduit and valve devices for connecting said pump to the source and to said consumer; and

drive means to drive said pump, that is constructed and connected to said pump in such a way that said suction cycle is shorter than said output cycle and that said fluid is supplied to said consumer with a substantially constant pressure.

2. (Previously presented) Transport device for sterile fluids to transport a sterile fluid from a source to a consumer comprising

a pump that defines at least three pump chambers and that transports volumetrically, with a suction cycle for drawing in said fluid and an output cycle for ejecting said fluid;

conduit and valve devices for connecting said pump to said source and to said consumer; and

drive means to drive said pump, that is constructed in such a way that the suction and output cycles of said pump chambers overlap one another.

3. (Previously presented) Transport device according to claim 1, wherein said pump comprises at least one first and one second piston/cylinder unit defining first and second pump chambers, which can be controlled in a push-pull manner in such a way that said suction cycle in said the first pump chamber is shorter than said the output cycle in said second pump chamber (35, 36) and conversely.

4. (Previously presented) Transport device according to claim 1, wherein said drive means is constructed in such a way that said output cycles overlap.

5. (Canceled)

6. (Previously presented) Transport device according to claim 1, wherein said pump is releasably connected to said drive means.

7. (Previously presented) Transport device according to claim 6, wherein at least one of said pump, said conduits, and said valve means, is constructed as a disposable unit.

8. (Previously presented) Transport device according to claim 2, wherein said drive means for each pump chamber comprises a separate, controllable drive motor.

9. (Previously presented) Transport device according to claim 1, wherein said drive means comprises a single controllable drive motor and gear mechanisms with a gear-train input connected to said drive motor and a gear-train output for each said pump chamber.

10. (Previously presented) Transport device according to claim 2, wherein said drive means is constructed in such a way that said output cycles overlap.

11. (Previously presented) Transport device according to claim 2, wherein said drive means is constructed in such a way that said fluid is supplied to said consumer with a substantially constant pressure.

12. (Previously presented) Transport device according to claim 2, wherein said pump is releasably connected to said drive means.

13. (Previously presented) Transport device according to claim 2, wherein said drive means comprises a single controllable drive motor and gear mechanisms with a gear-train input connected to said drive motor and a gear-train output for each said pump chamber.

14. (New) Transport device for sterile fluids to transport a sterile fluid from a source to a surgical instrument, comprising:

a pump that transports volumetrically, with a suction cycle for drawing in the fluid and an output cycle for ejecting the fluid,

conduit and valve devices for connecting the pump to the source and to the surgical instrument,

drive means to drive the pump, wherein

the pump comprises first and second pump chambers,

the drive means are constructed and connected to the pump in such a way that the suction cycle is shorter than the output cycle and in such a way that the output cycles overlap,

the pump is releasably connected to the drive means, and

the pump and the conduits, together with the valve means, are constructed as a disposable unit.

15. (New) Transport device according to Claim 14, wherein said first and second pump chambers can be controlled in a push-pull manner in such a way that the suction cycle in the first pump chamber is shorter than the output cycle in the second pump chamber and conversely.

16. (New) Transport device according to Claim 14, wherein the drive means is constructed in such a way that the fluid is supplied to the consumer with a substantially constant pressure.

17. (New) Transport device according to Claim 14, wherein the drive means for each pump chamber comprises a separate, controllable drive motor.

18. (New) Transport device according to Claim 14, wherein the drive means comprises a single controllable drive motor and gear mechanisms with a gear-train input connected to the drive motor and a gear-train output for each pump chamber.

19. (New) A transport device for sterile fluids to transport a sterile fluid from a source to a consumer, comprising:

a pump that transports volumetrically, with a suction cycle for drawing in the fluid and an output cycle for ejecting the fluid,

conduit and valve devices for connecting the pump to the source and to the consumer,

drive means to drive the pump, such that

the pump comprises at least three pump chambers and the drive means are constructed and connected to the pump in such a way that the suction cycle is shorter than the output cycle.

20. (New) Transport device according to Claim 19, wherein the drive means is constructed in such a way that the output cycles overlap.

21. (New) Transport device according to Claim 19, wherein the drive means is constructed in such a way that the fluid is supplied to the consumer with a constant pressure.

22. (New) Transport device according to Claim 19, wherein the pump is releasably connected to the drive means.

23. (New) Transport device according to Claim 19, wherein at least one of the pump and the conduits is constructed as a disposable unit.

24. (New) Transport device according to Claim 19, wherein the valve means is constructed as a disposable unit.

25. (New) Transport device according to Claim 19, wherein the drive means for each pump chamber comprises a separate, controllable drive motor.

26. (New) Transport device according to Claim 19, wherein the drive means comprises a single controllable drive motor as well as gear mechanisms with a gear-train input connected to the drive motor and a gear-train output for each pump chamber.

27. (New) A transport device for sterile fluids to transport a sterile fluid from a source to a consumer, comprising:

a pump that transports volumetrically, with a suction cycle for drawing in the fluid and an output cycle for ejecting the fluid,

conduit and valve devices for connecting the pump to the source and to the consumer,

drive means to drive the pump, such that

the pump comprises at least three pump chambers and the drive means is constructed in such a way that the suction and output cycles of the pump chambers overlap one another.

28. (New) Transport device according to Claim 27, wherein the drive means is constructed in such a way that the fluid is supplied to the consumer with a constant pressure.

29. (New) Transport device according to Claim 27, wherein the pump is releasably connected to the drive means.

30. (New) Transport device according to Claim 27, wherein at least one of the pump and the conduits is constructed as a disposable unit.

31. (New) Transport device according to Claim 27, wherein the valve means is constructed as a disposable unit.

32. (New) Transport device according to Claim 27, wherein the drive means for each pump chamber comprises a separate, controllable drive motor.

33. (New) Transport device according to Claim 27, wherein the drive means comprises a single controllable drive motor and gear mechanisms with a gear-train input connected to the drive motor and a gear-train output for each pump chamber.